

## Abstract

An intravenous oxygenator for enriching blood with oxygen, said oxygenator having a bundle of fibers, said fibers being each connected to a gas supply means through a first connection and to a gas evacuation means through a second connection, with the fiber bundle being twisted during operation by relative rotation of the first connections of the fibers relative to the second connections of the fibers about a longitudinal axis of the oxygenator. Further, an intravenous oxygenator for insertion into a vein, the connections being respectively connected to a first and to a second fiber holder and being displaceable along a longitudinal axis of the oxygenator, with the fiber holders being mounted so as to be rotatable relative to one another about the longitudinal axis of the oxygenator. Such a constellation permits particularly efficient gas exchange.